

1. (currently amended) In a wireless communications system, a base station location determining system comprising:

a fixed satellite positioning system first GPS receiver in a fixed location relative to base station, exact location coordinates of said first GPS receiver being fixed and predetermined;

predetermined location coordinates of said fixed satellite positioning system receiver;

a local error determination module which determines to determine a local error difference between a raw GPS location signal received by said fixed satellite positioning system receiver determined by said first GPS receiver and said predetermined exact location coordinates;

a second GPS receiver in a mobile satellite positioning system receiver device;

a combiner to combine combining said local error difference with a mobile position raw GPS location signal determined by said mobile satellite positioning system receiver device to provide a location accurate to within a few meters; and

a transmitter for transmitting said combined value during a telephone call.

2. (canceled)

3. (canceled)

4. (canceled)

5. (currently amended) In a wireless communications system, a location determining system according to claim 1, wherein:

said satellite positioning system is a said first GPS receiver and said second GPS receiver operate in a GLONASS system receiver.

6. (currently amended) In a wireless communications system, a location determining system according to claim 1, further comprising:

a database containing at least one geological correction with respect to said determination of said local error difference ~~a location of said satellite positioning system receiver.~~

7. (currently amended) In a wireless communications system, a location determining system according to claim 1, ~~further comprising~~ wherein said mobile device comprises:

a cellular telephone handset ~~having a navigational satellite system capability; wherein a location determined by said cellular telephone handset is correctable by said difference between said location signal received by said satellite positioning system receiver of said base station and said predetermined location coordinates.~~

8. (currently amended) In a wireless communications system, a location determining system according to claim 1, wherein said local error difference comprises:

a longitude difference; and  
a latitude difference.

9. (currently amended) In a wireless communications system, a location determining system according to claim 8 4, wherein said local error difference further comprises:

an altitude difference.

10. (currently amended) A method of improving an accuracy of a ~~received navigational satellite signal~~ GPS location in a ~~cellular telephone~~ wireless handset, comprising:

receiving location information from a navigational satellite system to determine a mobile GPS location in said wireless handset;

determining a local GPS error difference based on a difference between a fixed GPS location determined by a fixed GPS receiver, and known exact location coordinates of said fixed GPS receiver ~~receiving a differential GPS correction signal relating to an error in said received location information;~~

transmitting wirelessly said local GPS error difference from a base station to said wireless handset;

combining at said wireless handset said mobile GPS location information and said differential local GPS error difference ~~correction signal to generate highly accurate location information to within a few meters ; and transmitting said highly accurate location information during a telephone call.~~

11. (currently amended) The method of improving an accuracy of a ~~received navigational satellite signal in a cellular telephone~~ GPS location in a wireless handset according to claim 10, further comprising:

transmitting said highly accurate location information from said wireless handset to a called party during an emergency telephone call.

12. (currently amended) The method of improving an accuracy of a ~~received navigational satellite signal in a cellular telephone~~ GPS location in a wireless handset according to claim 11, wherein:

said emergency telephone call is a 911 an E-911 telephone call.

13. (canceled)

14. (canceled)

15. (currently amended) Apparatus for improving an accuracy of a ~~received navigational satellite signal in a cellular telephone~~ GPS location in a wireless handset, comprising:

means for receiving location information from a navigational satellite system to determine a mobile GPS location in said wireless handset;

means for determining a local GPS error difference based on a difference between a fixed GPS location determined by a fixed GPS receiver, and known exact location coordinates of said fixed GPS receiver; receiving a differential GPS correction signal relating to an error in said received location information; and

means for transmitting wirelessly said local GPS error difference from a base station to said wireless handset; and

means for combining at said wireless handset said mobile GPS location information and said differential local GPS error difference correction signal to generate highly accurate location information to within a few meters ; ~~and means for transmitting said highly accurate location information during a telephone call.~~

16. (currently amended) The apparatus for improving an accuracy of a ~~received navigational satellite signal in a cellular telephone~~ GPS location in a wireless handset according to claim 15, further comprising:

means for transmitting said highly accurate location information from said wireless handset to a called party during an emergency telephone call.

17. (currently amended) The apparatus for improving an accuracy of a ~~received navigational satellite signal in a cellular telephone~~ GPS location in a wireless handset according to claim 16, wherein:

said emergency telephone call is ~~a 911~~ an E-911 telephone call.

18. (canceled)

19. (canceled)

20. (currently amended) A method of increasing accuracy of a navigational satellite system in a wireless communications device, comprising:

receiving using cellular telephone functionality of said wireless communications device a local error difference ~~differential GPS correction signal containing a location correction factor~~;

determining a raw GPS location of said wireless communications device using a ~~navigational satellite~~ GPS system portion of in said wireless communications device;

combining said ~~location correction factor~~ local error difference with said determined raw GPS location of said wireless communications device to provide a location accurate to within a few meters; and

transmitting said ~~combined value~~ accurate location from said wireless communication device during a telephone call.

21. (currently amended) The method of increasing accuracy of a navigational satellite system in a wireless communications device according to claim 20, wherein said ~~location correction factor~~ local error difference comprises:

- a longitude correction; and
- a latitude correction.

22. (currently amended) The method of increasing accuracy of a navigational satellite system in a wireless communications device according to claim 21, wherein said ~~location correction factor~~ local error difference further comprises:

- an altitude correction.

23. (currently amended) A ~~navigation system~~ wireless device, comprising:

a satellite positioning system receiver;

a wireless communications front end; and

a module adapted to output during a telephone call a final GPS location corrected by a local error difference determined external to said wireless device by a fixed GPS receiver and wirelessly transmitted to said wireless device ~~location signal comprising a location signal received by said satellite positioning system receiver and a correction factor received by said wireless communications front end.~~

24. (currently amended) The ~~navigation system~~ wireless device according to claim 23, wherein:

said ~~location signal~~ local error difference includes longitude and latitude altitude information.

25. (currently amended) The ~~navigation system~~ wireless device according to claim 23, wherein:

said satellite positioning system receiver is a GPS receiver.

26. (currently amended) The ~~navigation system~~ wireless device according to claim 23, wherein:

said ~~wireless~~ communications front end is a cellular telephone.